Chapter Ten: Contents

(Error Codes – 21 May 2001 – LA-UR 00-1725 – TRANSIMS 2.0)

Chapter Ten: Tables

Chapter Ten—Error Codes

Table 1. Error code ranges.

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Table 2. Activity Generator, Activity Regenerator error codes.

Code	Description
11001	Caught signal.
11002	Assertion failed.
11003	Network exception occurred.
11004	Standard exception occurred.
11005	Unknown exception occurred.
11006	Invalid program usage.
11007	Memory allocation failed.
11008	Failed to open file for reading.
11009	Failed to open file for writing.
11010	Invalid array index.
11011	Invalid file descriptor.
11012	Failed to read record from file.
11013	Activity type not specified.
11014	Zone header not specified.
11015	Demographic header not specified.
11016	Activity location user data header not specified.
11017	Configuration key for file not specified.
11018	Mode not specified.
11019	Network directory not specified.
11020	Network activity location table not specified.
11021	Invalid zone number
11022	Specified household demographic not found in population.
11023	Specified person demographic not found in population.
11024	Time array size is too small.
11025	No driver activity associated with shared ride activity.
11026	Driver activity has invalid location.
11027	Failed to read record from file.
11028	Failed to read header from file.
11029	Invalid population file header.
11030	Invalid activity location table header.
11031	Invalid header in zone attractor file.
11032	Failed to construct network.
11033	No coefficient for given mode.
11034	Failed to choose anchor location for non-anchor activity.
11035	Failed to choose school for non-school activity.
11036	Home location not in home zone.
11037	Regression tree does not exist.
11038	Terminal node in regression tree is empty.
11039	Invalid node number in regression tree.
11040	Failed to find matching survey household for synthetic household.
11041	Survey household has no persons.
11042	Failed to find specified person in survey household.
11043	Failed to choose location for activity.

Code	Description
11044	Activity has invalid location.
11045	Invalid activity location ID.
11046	Arithmetic overflow…exp function is out of range.
11047	Last activity for person is not at end of trips.
11048	Number of specified school age ranges is inconsistent with specified zone/location values.

Table 3. Trip Table Activity Generator error codes.

Code	Description
12001	Caught signal.
12002	Assertion failed.
12003	Network exception has occurred.
12004	Exception has occurred.
12005	Unknown exception has occurred.
12006	Memory allocation failed.
12007	Invalid program usage.
12008	Failed to open file for reading.
12009	Failed to open file for writing.
12010	Failed to read record from file.
12011	Mandatory file not specified.
12012	Mode not found in mode file.
12013	Failed to construct network.
12014	No user data for specified header in network activity location table.
12015	Failed to find location for activity.
12016	Failed to create index for file.

Table 4. CA error codes.

Code	Description
13003	Not used.
13004	Not used.
13005	Not used.
13006	The slave or master cannot open output files or find required configuration file keys.
13007	The master cannot partition the network into pieces for each slave to handle, or the pieces cannot be broadcast to the individual slaves.
13008	The master or slave cannot find and open all of the required network data files, or the cached network data files are corrupted.
13009	A slave does not acknowledge having read the plans that are required before the first simulation step.
13010	The master cannot send a message to each slave directing it to execute a sequence of timesteps.
13011	The master cannot send a message to each slave directing it to execute a single timestep.
13012	Not used.

Code	Description
13013	The first timestep was not completed.
13014	The parallel communication system broke down.
13015	The master cannot shut down the simulation system.
13016	A slave did not correctly flush its output buffers when it ended.
13017	The master cannot flush run time statistics into the run time monitor output file.
13018	The `PLAN_FILE` configuration file key is missing from the configuration file.
13019	The file specified by the `PLAN_FILE` configuration file key cannot be opened for reading.
13020	The `VEHICLE_FILE` configuration file key is missing from the configuration file.
13021	The `VEHICLE_PROTOTYPE_FILE` configuration file key is missing from the configuration file.
13022	The `OUT_DIRECTORY` configuration file key is missing from the configuration file.
13023	The `CA_USE_NETWORK_CACHE` configuration file key is turned on but the cache files are not readable.
13024	An error in the METIS or orthogonal bisection routines prevents partitioning of a network.
13025	A saved network partition file specified by the `PAR_PARTITION_FILE` configuration file key cannot be used because it assumes a different number of slaves than specified by the `PAR_SLAVES` configuration file key.
13026	The list of machines or the location of the current CPU in that list could not be determined.
13027	A slave could not correctly flush output from a timestep or read in any plans required for executing the next timestep.
13028	A slave could not find information (e.g., a name) for the host it resides on.
13029	A slave is building its portion of the network if it cannot identify the CPU containing the node at the far end of a distributed link.
13030	A slave received a corrupted message with an unknown event ID.
13031	The vehicle or related index specified by the `VEHICLE_FILE` configuration key cannot be processed.
13032	There is a problem with the transit stop data.
13033	The master does not receive expected acknowledgments from all slaves after prompting them to take an action such as executing a timestep or exchanging boundary information.
13034	Unexpected messages were received while a slave was waiting for boundary information from its neighbor CPUs.
13035	A slave received information about a distributed link that is not a part of the portion of network on that slave during a boundary information exchange.
13036	A slave cannot allocate memory for a message during a boundary information exchange.
13037	A slave cannot send a message to a neighboring CPU during a boundary information exchange.
13038	A vehicle was removed from the simulation while it had occupants.”
13039	A capacity constraint on a vehicle was violated.
13040	The simulation attempted to remove the vehicle used internally to represent a blocked cell in a lane.
13041	A driver attempted to enter a vehicle that already had a driver, or the first node in a driver’s plan could not be reached from the origin parking lot.

Code	Description
13042	The source of an error cannot be determined.

Table 5. Calibration error codes.

Code	Description
14001	Caught signal.
14002	Assertion failed.
14003	Invalid program usage.
14004	Failed to open file for reading.
14005	Failed to open file for writing.
14006	Required column missing in microsimulation output.
14007	Signal time not matched with vehicle snapshot time.

Table 6. Emissions Estimator error codes.

Code	Description
15000	Not used currently.
15001	Not used currently.
15002	Not used currently.
15003	Occurs when an exception was caught within the emissions codes. Typically, this is found around calls to the Network subsystem. Exits.
15004	Occurs when an emissions module was invoked with the wrong number of command line arguments. Exits.
15005	Occurs when one of the emissions modules was unable to allocate enough storage. Exits.
15006	Occurs when one of the emissions modules was unable to read the header line from a microsimulation output file containing field names. Exits.
15007	Occurs when unable to find the link in the network link table. The data on these links are skipped.
15008	Occurs when a link is found to have an invalid street type. This could occur if velocity data was collected on street types other than those handled by the emissions modules (for instance walkways and bike paths). The data on these links are just skipped.
15009	Occurs when there is an instance where there are not continuous velocity data for a section of a link. Since emissions can only be calculated for continuous data, this link's data is skipped. The velocity data files are specified by the `EMISSIONS_LDV_VELOCITY_FILE`, `EMISSIONS_HDV_VELOCITY_FILE`, `EMISSIONS_MICROSIM_LDV_VELOCITY_FILE`, and `EMISSIONS_MICROSIM_HDV_VELOCITY_FILE` configuration file keys.
15010	Occurs when there is data in the first velocity speed bin of a box and no data in the other speed bins. Since emissions cannot be calculated for this instance, this link's data is skipped.
15011	Occurs when one of the following configuration file keys were not defined in the configuration file: `NET_DIRECTORY`, `NET_NODE_TABLE`, or `NET_LINK_TABLE`. Exits.
15012	Occurs when *EmissionsEstimator* was unable to open the postprocessed microsimulation velocity summary file. Make sure the `EMISSIONS_LDV_VELOCITY_FILE` configuration file key specifying the file has the proper filename, and the file has read permissions set correctly. Exits.
15013	Occurs when *EmissionsEstimator* was unable to open one of the four representative emissions files. Make sure the configuration file keys `EMISSIONS_COMPOSITE_INPUT_FILE`, `EMISSIONS_COMPOSITE2P_INPUT_FILE`, `EMISSIONS_COMPOSITE4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE6P_INPUT_FILE` specifying the files have the proper filenames, and the file has read permissions set correctly. Exits.
15014	Occurs when *EmissionsEstimator* was unable to open one of the four representative emissions difference files. Make sure the configuration file keys `EMISSIONS_COMPOSITE_DIFF_INPUT_FILE`, `EMISSIONS_COMPOSITE_DIFF2P_INPUT_FILE`, `EMISSIONS_COMPOSITE_DIFF4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE_DIFF6P_INPUT_FILE` specifying the files have the proper filenames, and the file has read permissions set correctly. Exits.

Code	Description
15015	Occurs when *EmissionsEstimator* was unable to open the parameter file specified by the `EMISSIONS_ARRAY_PARAMETERS_FILE` configuration file key. Make sure the configuration file key has the proper filename, and the file has read permissions set correctly. Exits.
15016	Occurs when *EmissionsEstimator* was unable to open one of the four energy soak distribution files. Make sure the configuration file keys `EMISSIONS_ENR_NO_SOAK_FILE, EMISSIONS_ENR_SHORT_SOAK_FILE, EMISSIONS_ENR_MEDIUM_SOAK_FILE`, and `EMISSIONS_ENR_LONG_SOAK_FILE` specifying the files have the proper filenames, and the file has read permissions set correctly. Exits.
15017	Occurs when *EmissionsEstimator* was unable to open one of the four soak time ratio input files. Make sure the configuration file keys `EMISSIONS_RATIOS_SHORT_SOAK_FILE, EMISSIONS_RATIOS_MEDIUM_SOAK_FILE`, and `EMISSIONS_RATIOS_LONG_SOAK_FILE` specifying the files have the proper filenames, and the file has read permissions set correctly. Exits.
15018	Occurs when *EmissionsEstimator* was unable to open the LDV Tailpipe Emissions Estimator output file. Make sure the configuration file key (`EMISSIONS_LDV_OUTPUT_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15019	Occurs when *EmissionsEstimator* was unable to open the first debugging output file. Make sure the configuration file key (`EMISSIONS_DEBUG1_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15020	Occurs when *EmissionsEstimator* was unable to open the second debugging output file. Make sure the configuration file key (`EMISSIONS_DEBUG2_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15021	Occurs when the file specified by the configuration file key `EMISSIONS_ARRAY_PARAMETERS_FILE` did not have the expected number of values in it. Exits.
15022	Occurs when there was no header line in one of the representative emissions files. Make sure the configuration file keys `EMISSIONS_COMPOSITE_INPUT_FILE, EMISSIONS_COMPOSITE2P_INPUT_FILE, EMISSIONS_COMPOSITE4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE6P_INPUT_FILE` specifying the files have the proper filenames. Exits.
15023	Occurs when there was no header line in one of the four representative emissions difference files. Make sure the configuration file keys `EMISSIONS_COMPOSITE_DIFF_INPUT_FILE, EMISSIONS_COMPOSITE_DIFF2P_INPUT_FILE, EMISSIONS_COMPOSITE_DIFF4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE_DIFF6P_INPUT_FILE` specifying the files have the proper filenames. Exits.

Code	Description
15024	Occurs when there were not enough data items in one of the four representative emissions files. The number of power bins and number of velocity bins that are assumed in the composite emissions files are read from the array parameters file (specified by `EMISSIONS_ARRAY_PARAMETERS_FILE`). Make sure the configuration file keys `EMISSIONS_COMPOSITE_INPUT_FILE`, `EMISSIONS_COMPOSITE2P_INPUT_FILE`, `EMISSIONS_COMPOSITE4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE6P_INPUT_FILE` specifying the composite emission files have the proper filenames. Exits.
15025	Occurs when there were not enough data items in one of the four representative emissions difference files. The number of power bins and number of velocity bins that are assumed in the composite emissions files are read from the array parameters file (specified by `EMISSIONS_ARRAY_PARAMETERS_FILE`). Make sure the configuration file keys `EMISSIONS_COMPOSITE_DIFF_INPUT_FILE`, `EMISSIONS_COMPOSITE_DIFF2P_INPUT_FILE`, `EMISSIONS_COMPOSITE_DIFF4P_INPUT_FILE`, and `EMISSIONS_COMPOSITE_DIFF6P_INPUT_FILE` specifying the composite difference files have the proper filenames. Exits.
15026	Occurs when there were not enough data items in one of the three composition ratios files. Each file should have ratios for each of the four types of emissions and each of the energy bins (eight at this time). Make sure the configuration file keys `EMISSIONS_RATIOS_SHORT_SOAK_FILE`, `EMISSIONS_RATIOS_MEDIUM_SOAK_FILE`, and `EMISSIONS_RATIOS_LONG_SOAK_FILE` specifying the ratios files have the proper filenames. Exits.
15027	Occurs when either the velocity data input file contains no data or the data in the file are of the incorrect format (for example, time specified as a floating-point number instead of an integer). Exits.
15028	Occurs when there were not enough data items in the postprocessed microsimulation light-duty vehicle velocity summary file. Make sure the configuration file key `EMISSIONS_LDV_VELOCITY_FILE` specifying the velocity file has the proper filename. Check the results of the *ConvertVELfile* program run to verify that there were no serious problems with the microsimulation velocity data file. Exits.
15029	Occurs when there was no header line in one of the four postprocessed energy summary soak files. Make sure the configuration file keys `EMISSIONS_ENR_NO_SOAK_FILE, EMISSIONS_ENR_SHORT_SOAK_FILE`, `EMISSIONS_ENR_MEDIUM_SOAK_FILE`, and `EMISSIONS_ENR_LONG_SOAK_FILE` specifying the energy files have the proper filenames. Exits.
15030	Occurs when there were not enough data items in one of the four postprocessed energy summary soak files. Each of the files should have distribution fractions for each of the energy bins (eight at this time) for each of the link/node pairs in the velocity file. Make sure the configuration file keys `EMISSIONS_ENR_NO_SOAK_FILE`, `EMISSIONS_ENR_SHORT_SOAK_FILE`, `EMISSIONS_ENR_MEDIUM_SOAK_FILE`, and `EMISSIONS_ENR_LONG_SOAK_FILE` specifying the energy files have the proper filenames. Check the results of the *ConvertENRfile* program run to verify that there were no serious problems with the microsimulation energy data files. Exits.

Code	Description
15031	Occurs when the four energy files are not matched properly for time, link, and node. Check the results of the *ConvertENRfile* program run to verify that there were no serious problems with the microsimulation energy data files. Exits in *ConvertENRfile*, but skipped in energy file in *EmissionsEstimator*.
15032	Occurs when *EmissionsEstimatorHDV* was unable to open the postprocessed microsimulation velocity summary file. Make sure the `EMISSIONS_HDV_VELOCITY_FILE` configuration file key specifying the file has the proper filename, and the file has read permissions set correctly. Exits.
15033	Occurs when *EmissionsEstimatorHDV* was unable to open the heavy-duty vehicle representative emissions file. Make sure the configuration file key `EMISSIONS_COMPOSITE_HDV_INPUT_FILE` specifying the file has the proper filename, and the file has read permissions set correctly. Exits.
15034	Occurs when *EmissionsEstimatorHDV* was unable to open the parameter file specified by the `EMISSIONS_HDV_ARRAY_PARAMETERS_FILE` configuration file key. Make sure that the configuration file key has the proper filename, and the file has read permissions set correctly. Exits.
15035	Occurs when *EmissionsEstimatorHDV* was unable to open the HDV Tailpipe Emissions Estimator output file. Make sure the configuration file key (`EMISSIONS_HDV_OUTPUT_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15036	Occurs when *EmissionsEstimatorHDV* was unable to open the first debugging output file. Make sure the configuration file key (`EMISSIONS_DEBUG1_HDV_FILE`) specifying the file has the proper filename, and the directory is writable.
15037	Occurs when *EmissionsEstimatorHDV* was unable to open the second debugging output file. Make sure the configuration file key (`EMISSIONS_DEBUG2_HDV_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15038	Occurs when the file specified by the configuration file key `EMISSIONS_HDV_ARRAY_PARAMETERS_FILE` did not have the expected number of values in it. Exits.
15039	Occurs when there were not enough data items in the heavy-duty vehicle representative emissions file. The number of speed bins that are assumed in the composite emissions file is twenty. Make sure the configuration file key `EMISSIONS_COMPOSITE_HDV_INPUT_FILE` specifying the composite emission file has the proper filename. Exits.
15040	Occurs when the heavy-duty vehicle representative emissions file was missing the two header lines in between data items in the file specified by the `EMISSIONS_COMPOSITE_HDV_INPUT_FILE` configuration file key. Exits.
15041	Occurs when there were not enough data items in the heavy-duty vehicle representative emissions file. The number of power bins and number of velocity bins that are assumed in the composite emissions files are read from the array parameters file (specified by `EMISSIONS_HDV_ARRAY_PARAMETERS_FILE`). Make sure the configuration file key `EMISSIONS_COMPOSITE_HDV_INPUT_FILE` specifying the composite emission file has the proper filename. Exits.
15042	Occurs when there were not enough data items in the postprocessed microsimulation heavy-duty vehicle velocity summary file. Make sure the configuration file key `EMISSIONS_HDV_VELOCITY_FILE` specifying the velocity file has the proper filename. Check the results of the *ConvertVELfile* program run to verify that there were no serious problems with the microsimulation velocity data file. Exits.

Code	Description
15043	Occurs when the timestep is not the assumed time. In this version of the software, the Tailpipe Emission Estimator expect a timestep of 3600 seconds (one hour). That particular velocity file is not processed. The timestep is specified by the `OUT_SUMMARY_TIME_STEP_DEFAULT` or the `OUT_SUMMARY_TIME_STEP_n` configuration file key.
15044	Occurs when the microsimulation velocity summary file does not have the assumed sample time of one second. That particular velocity file is not processed. The sample time is specified by the `OUT_SUMMARY_SAMPLE_TIME_DEFAULT` or the `OUT_SUMMARY_SAMPLE_TIME_n` configuration file key.
15045	Occurs when the microsimulation velocity summary file does not have the assumed cell length of 7.5 meters. That particular velocity file is not processed. The cell length is specified by the `CA_CELL_LENGTH` configuration file key.
15046	Occurs when the microsimulation velocity summary file does not have the assumed box length of 30 meters. That particular velocity file is not processed. The box length is specified by the `OUT_SUMMARY_BOX_LENGTH_DEFAULT` or the `OUT_SUMMARY_BOX_LENGTH_n` configuration file key.
15047	Occurs when the file specified by the configuration file key `EMISSIONS_MICROSIM_LDV_VELOCITY_FILE` does not contain data of vehicle type `AUTO`, or the file specified by the configuration file key `EMISSIONS_MICROSIM_HDV_VELOCITY_FILE` does not contain data of vehicle type `TRUCK`. That particular velocity file is not processed.
15048	Occurs when the microsimulation velocity summary file does not have the assumed max velocity of 37.5 meters. That particular velocity file is not processed. The max velocity is specified by the `OUT_SUMMARY_VELOCITY_MAX_DEFAULT` or the `OUT_SUMMARY_VELOCITY_MAX_n` configuration file key.
15049	Occurs when the microsimulation velocity summary file does not have the assumed number of bins of six. That particular velocity file is not processed. The number of bins is specified by the `OUT_SUMMARY_VELOCITY_BINS_DEFAULT` or the `OUT_SUMMARY_VELOCITY_BINS_n` configuration file key.
15050	Occurs when *ConvertVELfile* was unable to open the microsimulation velocity summary file. That particular velocity file is not processed. Make sure the configuration file keys (`EMISSIONS_MICROSIM_LDV_VELOCITY_FILE` and `EMISSIONS_MICROSIM_HDV_VELOCITY_FILE`) specifying the files have the proper filenames, and the files have read permissions set correctly.
15051	Occurs when *ConvertVELfile* was unable to open one of the velocity output files. That particular velocity file is not processed. Make sure the configuration file keys (`EMISSIONS_LDV_VELOCITY_FILE` and `EMISSIONS_HDV_VELOCITY_FILE`) specifying the files have the proper filenames, and the directories are writable.
15052	Occurs when the emissions module has determined that there is metadata in the microsimulation velocity summary file it is attempting to process, but an error occurred when it tried to read it. That particular velocity file is not processed.
15053	Occurs when a problem occurred with verifying the metadata in the microsimulation velocity summary file. That particular velocity file is not processed.
15054	Occurs when a field was missing out of the microsimulation velocity summary file. That particular velocity file is not processed. Necessary fields are `TIME, LINK, NODE, DISTANCE, COUNT0, COUNT1, COUNT2, COUNT3, COUNT4`, and `COUNT5`.

Code	Description
15055	Occurs when a microsimulation velocity summary file had a header but no data. That particular velocity file is not processed.
15056	Occurs when both of the light-duty and heavy-duty velocity input files have similar problems. This can occur with both unable to open input or output files, metadata not as assumed, missing header files, etc. Exits.
15057	Occurs when a microsimulation energy summary file had a header but no data.
15058	Occurs when the energy files have different timesteps (specified by OUT_SUMMARY_TIME_STEP_DEFAULT or OUT_SUMMARY_TIME_STEP_n). The energy files must all have the same timestep for their usage to be valid. Exits.
15059	Occurs when one or more of the energy files is not of the assumed soak time. Each of the four microsimulation energy summary files must be of a particular soak time. For example, for the NEGLIGIBLE file, this is specified in the configuration file with the following configuration file keys/values: EMISSIONS_MICROSIM_ENR_NO_SOAK_FILE specifies the microsimulation energy output file created by the following specification. Filename is specified by OUT_SUMMARY_NAME_n with the OUT_DIRECTORY prefix and a *.enr* extension, OUT_SUMMARY_TYPE_n ENERGY and OUT_SUMMARY_ENERGY_SOAK_n NEGLIGIBLE. EMISSIONS_MICROSIM_ENR_SHORT_SOAK_FILE comes from the OUT_SUMMARY_ENERGY_SOAK_n configuration file key set to SHORT specification. EMISSIONS_MICROSIM_ENR_MEDIUM_SOAK_FILE comes from the OUT_SUMMARY_ENERGY_SOAK_n configuration file key set to MEDIUM specification. EMISSIONS_MICROSIM_ENR_LONG_SOAK_FILE comes from the OUT_SUMMARY_ENERGY_SOAK_n configuration file key set to LONG specification. Each of these four soak files must have a unique OUT_SUMMARY_NAME_n. Exits.
15060	Occurs when all energy files have the same max energy (specified by OUT_SUMMARY_ENERGY_MAX_DEFAULT or OUT_SUMMARY_ENERGY_MAX_n) but not the assumed energy. The NEGLIGIBLE file can be 0.0, but all others must be set to 105. Exits.
15061	Occurs when the energy files have different max energies defined (specified by OUT_SUMMARY_ENERGY_MAX_DEFAULT or OUT_SUMMARY_ENERGY_MAX_n). The NEGLIGIBLE file can be set to 0.0, but all others must be set to 105. Exits.
15062	Occurs when the energy files all have the same number of bins but not the assumed number. The energy files must either all have the same assumed number of energy bins of eight; or the NEGLIGIBLE file may have one bin, and the other three must have eight bins each. The number of bins is specified by the configuration file key OUT_SUMMARY_ENERGY_BINS_DEFAULT or OUT_SUMMARY_ENERGY_BINS_n. Exits.
15063	Occurs when the energy files have different numbers of bins (specified by OUT_SUMMARY_ENERGY_BINS_DEFAULT or OUT_SUMMARY_ENERGY_BINS_n). The energy files must either all have the same assumed number of energy bins of eight; or the NEGLIGIBLE file may have one bin, and the other three must have eight bins each. Exits.

Code	Description
15064	Occurs when all of the energy files have the same short soak time (specified by `CA_SHORT_SOAK_TIME`), but not the assumed time. The energy files must all have the same assumed short soak time of 600 seconds (10 minutes). Exits.
15065	Occurs when the energy files have different short soak times (specified by `CA_SHORT_SOAK_TIME`). The energy files must all have the same assumed short soak time of 600 seconds (10 minutes). Exits.
15066	Occurs when all of the energy files have the same medium soak time (specified by `CA_MEDIUM_SOAK_TIME`), but not the assumed time. The energy files must all have the same assumed medium soak time of 1800 seconds (30 minutes). Exits.
15067	Occurs when the energy files have different medium soak times (specified by `CA_MEDIUM_SOAK_TIME`). The energy files must all have the same assumed medium soak time of 1800 seconds (30 minutes). Exits.
15068	Occurs when all of the energy files have the same long soak time (specified by `CA_LONG_SOAK_TIME`), but not the assumed time. The energy files must all have the same assumed long soak time of 9000 seconds (2.5 hours). Exits.
15069	Occurs when the energy files have different long soak times (specified by `CA_LONG_SOAK_TIME`). The energy files must all have the same assumed long soak time of 9000 seconds (2.5 hours). Exits.
15070	Occurs when the energy files have different date and time stamps. Date and time stamps must all match to make sure using energy files from the same microsimulation run. Exits.
15071	Occurs when some of the energy files have metadata, but not all. Either all files need to have the data or none of them. Exits.
15072	Occurs when *ConvertENRfile* was unable to open one of the microsimulation summary energy files. Make sure the configuration file keys specifying the files have the proper filenames: `EMISSIONS_MICROSIM_ENR_NO_SOAK_FILE`, `EMISSIONS_MICROSIM_ENR_SHORT_SOAK_FILE`, `EMISSIONS_MICROSIM_ENR_MEDIUM_SOAK_FILE`, and `EMISSIONS_MICROSIM_ENR_LONG_SOAK_FILE`, and the files have read permissions set correctly. Exits.
15073	Occurs when *ConvertENRfile* was unable to open one of the energy output files. Make sure the configuration file keys specifying the files have the proper filenames, and the directory(es) are writable: `EMISSIONS_ENR_NO_SOAK_FILE`, `EMISSIONS_ENR_SHORT_SOAK_FILE`, `EMISSIONS_ENR_SHORT_SOAK_FILE`, and `EMISSIONS_ENR_LONG_SOAK_FILE`. Exits.
15074	Occurs when a field was missing out of a microsimulation energy summary file. Necessary fields are `TIME, LINK, NODE, ENERGY0, ENERGY1, ENERGY2, ENERGY3, ENERGY4, ENERGY5, ENERGY6`, and `ENERGY7`. The `NEGLIGIBLE` file may have the fields `TIME, LINK, NODE, ENERGY0`. Exits.
15075	Occurs when *ConvertTRVfile* finds a link with a third node ID associated with it. Only two end nodes can be associated with a link. The line in the traveler event file is skipped. Exits.
15076	Occurs when *ConvertTRVfile* was unable to open the microsimulation traveler event file. Make sure the configuration file key (`EMISSIONS_MICROSIM_TRAVELER_FILE`) specifying the file has the proper filename, and the file has read permissions set correctly. Exits.

Code	Description
15077	Occurs when a field was missing out of the microsimulation traveler event file. Necessary fields are `TIME, VEHICLE, LOCATION, STATUS`, and `VEHTYP` for creation of the vehicle parking location/time file. Exits.
15078	Occurs when *ConvertTRVfile* was unable to open the vehicle parking location/time output file. Make sure the configuration file key (`EMISSIONS_PA_OUTPUT_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15079	Occurs when a field was missing out of the microsimulation traveler event file. Necessary fields are `TIME, LINK, NODE, STATUS, VEHTYPE`, and `VSUBTYPE` for creation of the vehicle subtype count file. Exits.
15080	Occurs when the `EMISSIONS_NUMBER_VSUBTYPES` configuration file key has a value larger than the allowed maximum subtypes. At this time, 50 subtypes are allowed. Exits.
15081	Occurs when *ConvertTRVfile* was unable to open the vehicle subtype count output file. Make sure the configuration file key (`EMISSIONS_SUBTYPE_OUTPUT_FILE`) specifying the file has the proper filename, and the directory is writable. Exits.
15082	Occurs when the microsimulation time summary file had a header but no data. Exits, not used at this time.
15083	Occurs when *ConvertTIMfile* was unable to open the microsimulation summary time file. Make sure the configuration file key specifying the file (`EMISSIONS_MICROSIM_TIME_FILE`) has the proper filename, and the file has read permissions set correctly. Exits, not used at this time.
15084	Occurs when *ConvertTIMfile* was unable to open the time output file. Make sure the configuration file key specifying the file (`EMISSIONS_TIME_FILE`) has the proper filename, and the directory is writable. Exits, not used at this time.
15085	Occurs when a field was missing out of the microsimulation time summary file. Necessary fields are `TIME, LINK, NODE, SUM, COUNT`, and `VCOUNT`. Exits, not used at this time.
15086	Occurs when *CreateComposites* was unable to open the vehicle type distribution file. The `EMISSIONS_VEHICLE_TYPE_DISTRIBUTION` configuration file key specifies this file, and the file has read permissions set correctly. Exits.
15087	Occurs when the file specified by the configuration file key `EMISSIONS_VEHICLE_TYPE_DISTRIBUTION` did not have the expected number of values in it. Exits.
15088	Occurs when *CreateComposites* was unable to open the representative emissions file for all vehicle subtypes. Make sure the `EMISSIONS_COMPOSITE_INPUT_FILE` configuration file key specifies the proper filename, and the file has read permissions set correctly. Exits.
15089	Occurs when *CreateComposites* was unable to open the output file that is supposed to contain the representative emissions for one combined vehicle type. Make sure the `EMISSIONS_COMPOSITE_INPUT_FILE` configuration file key contains the proper filename, and the directory has write permissions. Exits.
15090	Occurs when the file specified by the configuration file key `EMISSIONS_COMPOSITE_TYPE_INPUT_FILE` did not have the expected number of values in it. Exits.
15091	Occurs when *CreateComposites* was unable to open the representative emissions difference file for all vehicle subtypes. Make sure the `EMISSIONS_COMPOSITE_TYPE_DIFF_INPUT_FILE` configuration file key contains the proper filename, and the file has read permissions set correctly. Exits.

Code	Description
15092	Occurs when *CreateComposites* was unable to open the output file that is supposed to contain the representative emission differences for one combined vehicle type. Make sure the `EMISSIONS_COMPOSITE_DIFF_INPUT_FILE` configuration file key contains the proper filename, and the file has read permissions set correctly. Exits.
15093	Occurs when the file specified by the configuration file key `EMISSIONS_COMPOSITE_TYPE_DIFF_INPUT_FILE` did not have the expected number of values in it.
15094	Occurs when *EvaporativeEstimator* was unable to open the emissions coefficients input file. Make sure the `EMISSIONS_EVAP_COEF_FILE` configuration file key specifying the file has the proper filename, and the file has read permissions set correctly.
15095	Occurs when *EvaporativeEstimator* was unable to open the parking location input file. Make sure the `EMISSIONS_PA_OUTPUT_FILE` configuration file key specifying the file has the proper filename, and the file has read permissions set correctly.
15096	Occurs when *EvaporativeEstimator* was unable to open the microsimulation velocity summary input file. Make sure the `EMISSIONS_MICROSIM_LDV_VELOCITY_FILE` configuration file key has the proper filename, and the file has read permissions set correctly.
15097	Occurs when *EvaporativeEstimator* was unable to open the Stationary losses emissions output file. Make sure the `EMISSIONS_EVAP_STATIONARY_OUTFILENAME` configuration file key specifying the file has the proper filename, and the directory is writable.
15098	Occurs when *EvaporativeEstimator* was unable to open the Operating losses emissions output file. Make sure the `EMISSIONS_EVAP_OPERATING_OUTFILENAME` specifying the file has the proper filename, and the directory is writable.
15099	Occurs when the *EvaporativeEstimator* was unable to open the city-specific data input file. Make sure the `EMISSIONS_EVAP_CITY_FILE` configuration file key specifying the file has the proper filename, and the file has read permissions set correctly.
15100	Occurs when *EvaporativeEstimator* was unable to open the debug output file. Make sure the `EMISSIONS_EVAP_DEBUG_FILENAME` configuration file key specifying the file has the proper filename, and the directory is writable.
15101	Occurs when there was no header line in the parking location input file. Make sure the configuration file key `EMISSIONS_PA_OUTPUT_FILE` specifying the file has the proper filename.
15102	Occurs when there was no header line in the city-specific input file. Make sure the configuration file key `EMISSIONS_EVAP_CITY_FILE` specifying the file has the proper filename.
15103	Occurs when the file specified by the configuration file key `EMISSIONS_PA_OUTPUT_FILE` did not have the expected number of values in it.
15104	Occurs when the file specified by the configuration file key `EMISSIONS_PA_OUTPUT_FILE` did not have the expected number of values in it.
15105	Occurs when the file specified by the configuration file key `EMISSIONS_EVAP_CITY_FILE` did not have the expected number of values in it..
15106	Occurs when the file specified by the configuration file key `EMISSIONS_EVAP_CITY_FILE` has a value for number of years of vehicle age distribution that is greater than the maximum years of age distribution allowed in the software (50 years).

Code	Description
15107	Occurs when the file specified by the configuration file key `EMISSIONS_PA_OUTPUT_FILE` either has no data in it or the data that is in it has simulation times that are out of range of the simulation start and end times specified by the configuration file keys `CA_SIM_START_SECOND`, `CA_SIM_START_MINUTE`, `CA_SIM_START_HOUR`, and `CA_SIM_STEPS`.
15108	Occurs when the *EvaporativeEstimator* comes across an unknown emissions type in one of the following functions: **`askLeaker`**, **`getHotSoak`**, or **`getPartialDiurnal`**. That particular emission type is not calculated for the current vehicle type.
15109	Occurs when the *EvaporativeEstimator* comes across an hour that is out of the normal bounds (0 to 23) in the **`getTemperature`** function.
15110	Occurs when Cumulative Model Year Distribution adds up to greater than 100% when initializing the `UserDefined` variables.
15111	Occurs in **`GetParkingInfo()`** when a parking ID is not found to be in the network. The emissions data for this parking location is not outputted.
15112	Occurs when getting a parking location's offset from the intersection, and the offset is larger than the length of the link. The emissions data for this parking location is not outputted.
15113	Occurs when the *EvaporativeEstimator* comes across a read in simulation time that is lower than or higher than the simulation start and end times defined by the configuration file keys `CA_SIM_START_SECOND`, `CA_SIM_START_MINUTE`, `CA_SIM_START_HOUR`, and `CA_SIM_STEPS`.
15114	Occurs when the *EvaporativeEstimator* encounters a parking location ID of zero in the **`Emissions:setHC`** function.
15115	Occurs when the *CombineEvap* program was unable to open the combined emissions output file. Make sure the `EMISSIONS_EVAP_COMBINED_OUTFILENAME` configuration file key specifying the file has the proper filename and the directory is writable.

Table 7. GBL (Global) subsystem error codes.

Code	Description
16001	Caught signal.
16002	Assertion failed.
16003	Exception has occurred.

Table 8. IO subsystem error codes.

Code	Description
17001	Caught signal.
17002	Assertion failed.
17003	Invalid program usage.
17004	Invalid field type.
17005	Failed to open file for reading.
17006	Failed to open file for writing.
17007	Failed to map/unmap file in memory.
17008	Failed to set protections on mapped memory.
17009	File descriptor error.
17010	Memory allocation failure.
17011	File offset too large.
17012	File operation failed.
17013	Incompatible btree order/version.

Table 9. Network error codes.

Code	Description
19001	Caught signal.
19002	Assertion failed.
19003	Invalid program arguments.
19004	Standard exception.
19005	Unknown exception.
19006	Network subsystem problem.
19007	Not found.
19008	Illegal value.
19009	Undefined control.
19010	Cannot read.
19011	Input or output error.
19012	Unrecognized functional class.
19013	Movement not assigned to a phase.
19014	Lanes not assigned to a phase.
19015	Incoming degree does not match outgoing degree.
19016	Multiple functional classes.
19017	Respecifying straight link.
19018	Incoming degree greater than 4.
19019	Null control assigned.
19020	OTHER functional class.
19021	LIGHTRAIL functional class.

Table 10. Output representation error codes.

Code	Description
20001	Caught signal.
20002	Assertion failed.
20003	Invalid program arguments.
20004	Standard exception.
20005	Unknown exception.
20006	Output subsystem problem.
20007	Storage failure.
20008	Writer failure.
20009	Invalid processor.
20010	Cannot read.
20011	Input error

Table 11. Block Group Locator error codes.

Code	Description
24001	Caught signal.
24002	Assertion failed.
24003	Exception has occurred.
24004	Network exception has occurred.
24005	Unknown exception has occurred.
24006	Invalid program usage.
24007	Failed to open file for reading.
24008	Failed to open file for writing.
24009	Mandatory configuration key not specified.
24010	Failed to read record from file.
24011	Memory allocation failed.
24012	Mandatory file not specified.
24013	Failed to construct network.
24014	No user data for specified header in network activity location table.
24015	Insufficient data in network table.

Table 12. Route Planner error codes.

Code	Description
25001	Couldn’t read activity file.
25002	Couldn’t read household file.
25003	Couldn’t read mode map file.
25004	Invalid program arguments.
25005	Required config key not specified.
25006	Standard exception caught.
25007	Unknown exception caught.

Table 13. Population Synthesizer error codes.

Code	Description
27001	Caught signal.
27002	Assertion failed.
27003	Incorrect command line.
27004	Missing configuration key.
27005	Unable to open file.
27006	Invalid data in file.
27007	Rake code failed.
27008	Internal error.
27009	Database utility error.

Table 14. Transit error codes.

Code	Description
30001	Caught signal.
30002	Assertion failed.
30003	No transit route file specified.
30004	Cannot open transit route file.
30005	No transit schedule file specified.
30006	Cannot open transit schedule file.
30007	No transit zone file specified.
30008	Cannot open transit zone file.
30009	Illegal value in field `TRANSIT_TYPE` of transit zone table.

Table 15. Vehicle Generator error codes.

Code	Description
33001	Caught signal.
33002	Assertion failed.
33003	Exception has occurred.
33004	Network exception has occurred.
33005	Unknown exception has occurred.
33006	Invalid program usage.
33007	Failed to open file for reading.
33008	Failed to open file for writing.
33009	Failed to write record to file.
33010	Mandatory file not specified.
33011	Failed to construct network.
33012	Person demographic header not specified.
33013	Specified person demographic not found in population.
33014	Home activity location not found in network activity location table.
33015	Failed to read file header line(s).
33016	No parking location accessible via process links from specified activity location.

Table 16. Output Visualizer error codes.

Code	Description
34000	Not used.
34001	Not used.
34002	Not used.
34003	Mandatory configuration file key(s) not specified. Edit the configuration file keys in your configuration file to make sure all of the mandatory file keys are specified. A list of the unspecified keys is listed along with the output.
34004	Incorrect number of arguments were supplied. The proper usage is `Vis <config file>.`
34005	Network exception caught. The Network subsystem has caught an exception. This is most likely to be a missing table.
34006	An exception is caught by the VIS subsystem. Most likely, the problem is inconsistent data.
34007	Can't open input file. The input file does not exist.
34008	Can't create file for output. A file cannot be created in the directory specified. Check the permissions in the specified directory. If the permissions are ok, check for disk space limitations.
34009	Not enough random access memory (RAM) when trying to allocate memory. Add more memory to the machine, reduce the size of the file to be loaded, or quit other memory using programs and retry.
34010	Can't read input file header. The header is missing in the file entirely or is missing a mandatory field. If a specified field is missing, it will also be printed.
34011	Node is missing. A node that is not present in the currently loaded data was referenced but not found. Check for consistency in the Link and Node tables.
34012	Link is missing. A link that is not present in the currently loaded data was referenced but not found. Check for consistency in the Link and Node tables.
34013	Number of NET and VIS nodes disagree. A problem in internal data consistency has occurred. Check the node and link tables for consistency.
34014	Number of NET and VIS links disagree. A problem in internal data consistency has occurred. Check the node and link tables for consistency.
34015	A node that is referenced by a link is not on the given link. Both the link and the node are printed. Check the node and link tables for consistency.